Replace claims 71, 76, 78, 83, 85, 86 and 88 with the following amended claims:

71. (Amended) A monoclonal antibody that recognizes a human 8F4 polypeptide or a fragment thereof, wherein said 8F4 polypeptide:

a) is an inducible T cell costimulatory molecule;

b) occurs on two-signal-activated human T lymphocytes;

c) exhibits a molecular weight of about 55 to 60 kilodaltons as determined by non-reducing sodium dodecyl sulphate polyacrylamide gel electrophoresis (SDS-PAGE); and

d) is a dimer of two peptide chains exhibiting molecular weights of about 27 kilodaltons and 29 kilodaltons, as measured by reducing SDS-PAGE,

and wherein the monoclonal antibody, in conjunction with anti-CD3 monoclonal antibody OKT3, costimulates human T lymphocytes.

76. (Amended) A monoclonal antibody that recognizes a human 8F4 polypeptide or a fragment thereof, wherein said 8F4 polypeptide:

a) is an inducible T cell costimulatory molecule;

b) occurs on two-signal-activated human T lymphocytes;

c) exhibits a molecular weight of about 55 to 60 kilodaltons as determined by non-reducing sodium dodecyl sulphate polyacrylamide gel electrophoresis (SDS-PAGE); and

d) is a dimer of two peptide chains exhibiting molecular weights of about 27 kilodaltons and 29 kilodaltons, as measured by reducing SDS-PAGE,

and wherein the monoclonal antibody inhibits a biological activity of the human 8F4 polypeptide.

78. (Amended) A hybridoma that produces a monoclonal antibody that recognizes a human 8F4 polypeptide or a fragment thereof, wherein said 8F4 polypeptide:

a) is an inducible T cell costimulatory molecule;

b) occurs on two-signal-activated human T lymphocytes;

c) exhibits a molecular weight of about 55 to 60 kilodaltons as determined by non-reducing sodium dodecyl sulphate polyacrylamide gel electrophoresis (SDS-PAGE); and

d) is a dimer of two peptide chains exhibiting molecular weights of about 27 kilodaltons and 29 kilodaltons, as measured by reducing SDS-PAGE,

and wherein the monoclonal antibody, in conjunction with anti-CD3 monoclonal antibody OKT3, costimulates human T lymphocytes.

83. (Amended) A hybridoma that produces a monoclonal antibody that recognizes a human 8F4 polypeptide or a fragment thereof, wherein said 8F4 polypeptide:

a) is an inducible T cell costimulatory molecule;

b) occurs on two-signal-activated human T lymphocytes;

c) exhibits a molecular weight of about 55 to 60 kilodaltons as determined by non-reducing sodium dodecyl sulphate polyacrylamide gel electrophoresis (SDS-PAGE); and

d) is a dimer of two peptide chains exhibiting molecular weights of about 27 kilodaltons and 29 kilodaltons, as measured by reducing SDS-PAGE,

and wherein said hybridoma produces a monoclonal antibody that inhibits a biological activity of the human 8F4 polypeptide.

85. (Amended) A pharmaceutical composition comprising a monoclonal antibody that recognizes a human 8F4 polypeptide or a fragment thereof, wherein said 8F4 polypeptide:

a) is an inducible T cell costimulatory molecule;

b) occurs on two-signal-activated human T lymphocytes;

c) exhibits a molecular weight of about 55 to 60 kilodaltons as determined by non-reducing sodium dodecyl sulphate polyacrylamide gel electrophoresis (SDS-PAGE); and

d) is a dimer of two peptide chains exhibiting molecular weights of about 27 kilodaltons and 29 kilodaltons, as measured by reducing SDS-PAGE,

and wherein the monoclonal antibody, in conjunction with anti-CD3 monoclonal antibody OKT3, costimulates human T lymphocytes.

86. (Amended) A pharmaceutical composition comprising a monoclonal antibody that recognizes a human 8F4 polypeptide or a fragment thereof, wherein said 8F4 polypeptide:

a) is an inducible T cell costimulatory molecule;

b) occurs on two-signal-activated human T lymphocytes;

c) exhibits a molecular weight of about 55 to 60 kilodaltons as determined by non-reducing sodium dodecyl sulphate polyacrylamide gel electrophoresis (SDS-PAGE); and

d) is a dimer of two peptide chains exhibiting molecular weights of about 27 kilodaltons and 29 kilodaltons, as measured by reducing SDS-PAGE,

and wherein the monoclonal antibody inhibits a biological activity of the human 8F4 polypeptide.

88. A method for producing the monoclonal antibody of Claim 71 or 76, comprising: culturing an antibody-secreting hybridoma obtained by fusion of a myeloma cell line cell with a spleen cell of a mouse immunized with 2-signal-activated human T lymphocytes, such that the monoclonal antibody is produced.

Please add new claims 89 to 98, as follows:

89. (New) The monoclonal antibody of Claim 76, wherein said monoclonal antibody recognizes the human 8F4 polypeptide of about 55 kilodaltons to 60 kilodaltons, as determined by non-reducing SDS-PAGE.

90. (New) The monoclonal antibody of Claim 76, wherein said monoclonal antibody recognizes the peptide chain of about 27 kilodaltons, as determined by reducing SDS-PAGE.

91. (New) The monoclonal antibody of Claim 76, wherein said monoclonal antibody recognizes the peptide chain of about 29 kilodaltons, as determined by reducing SDS-PAGE.

92. (New) The monoclonal antibody of Claim 76, wherein said monoclonal antibody recognizes a human 8F4 polypeptide present on activated human $CD4^+$ T lymphocytes and activated human $CD8^+$ T lymphocytes.

93. (New) The hybridoma of Claim 83, wherein said hybridoma produces a monoclonal antibody that recognizes the human 8F4 polypeptide of about 55 kilodaltons to 60 kilodaltons, as determined by non-reducing SDS-PAGE.

94. (New) The hybridoma of Claim 83, wherein said hybridoma produces a monoclonal antibody that recognizes the peptide chain of about 27 kilodaltons, as determined by reducing SDS-PAGE.

D8 cont.

95. (New) The hybridoma of Claim 83, wherein said hybridoma produces a monoclonal antibody that recognizes the peptide chain of about 29 kilodaltons, as determined by reducing SDS-PAGE.

Sub F8 cont

96. (New) The hybridoma of Claim 83, wherein said hybridoma produces a monoclonal antibody that recognizes a human 8F4 polypeptide present on activated human $CD4^+$ T lymphocytes and activated human $CD8^+$ T lymphocytes.

97. (New) A method of producing a human 8F4 polypeptide-specific monoclonal antibody, comprising: culturing an antibody-secreting hybridoma obtained by fusion of a myeloma cell line cell with a spleen cell of a mouse immunized with an antigen comprising a human 8F4 polypeptide, wherein said human 8F4 polypeptide:

a) is an inducible T cell costimulatory molecule;

b) occurs on two-signal-activated human T lymphocytes;

c) exhibits a molecular weight of about 55 to 60 kilodaltons as determined by non-reducing sodium dodecyl sulphate polyacrylamide gel electrophoresis (SDS-PAGE); and

d) is a dimer of two peptide chains exhibiting molecular weights of about 27 kilodaltons and 29 kilodaltons, as measured by reducing SDS-PAGE,

such that the monoclonal antibody is produced.